SELPHY DS810

SERVICE MANUAL

Canon

SELPHY DS810

REFERENCE MANUAL

This reference manual describes differences from the base model, SELPHY DS 700.

When referring to the SELPHY DS700 Service Manual, Service Parts Number in it may be different from SELPHY DS810 model. Please refer to the SELPHY DS810 Parts Catalog (QY8-9077-D0C).

QY8-13AE-000

I. MANUAL OUTLINE

This manual consists of the following three parts to provide information necessary to service the SELPHY DS810:

Part 1: Maintenance
Information on maintenance and troubleshooting of the SELPHY DS810

Part 2: Technical Reference
New technology and technical information such as FAQ's (Frequently Asked Questions) of the SELPHY DS810

Part 3: Appendix
Block diagrams and pin layouts of the SELPHY DS810

Reference:
This manual does not provide sufficient information for disassembly and reassembly procedures. Refer to the graphics in the separate Parts Catalog.

II. TABLE OF CONTENTS

Part 1

MAINTENANCE

1. MAINTENANCE

1-1. Adjustment, Periodic Maintenance, Periodic Replacement Parts, and Replacement Consumables by Service Engineer

(1) Adjustment

Adjustment	Timing	Purpose	Tool	Approx. time
Destination settings (EEPROM settings)	At logic board ass'y replacement	To set the destination.	None.	1 min.
Language settings	At logic board ass'y replacement	To set the language to be displayed on the LCD.	None. (in the user mode)	1 min.
Waste ink counter resetting (EEPROM settings)	- At logic board ass'y replacement - At waste ink absorber replacement	To reset the waste ink counter.	None.	1 min.
Paper feed motor ass'y position adjustment	- At paper feed motor ass'y replacement	To adjust the belt tension. (Position the paper feed motor so that the belt is stretched tight.)	None.	2 min.
Pump unit adjustment	- At pump unit replacement - At purge tube replacement - At pump drive gear replacement	To set an accurate ink absorption function.	None.	2 min.
Grease application	- At carriage unit / carriage shaft replacement - At access cover unit replacement - At feed roller ass'y replacement	To maintain sliding properties of the: - carriage oil pad / carriage shaft, carriage rail. - access cover, and - feed roller ass'y.	- GREASE EU-1 - MOLYKOTE PG641 - FLOIL KG-107A - GREASE ELECTRICITY IF-20	1 min.

Note: - DO NOT loosen the 2 red screws on both front sides of the main chassis, adjusting the head-to-paper distance.
- The red screws securing the paper feed motor ass'y may be loosened only at replacement of the paper feed motor ass'y.
- For DS810, access cover gear phase adjustment is not necessary.

(2) Periodic maintenance
No periodic maintenance is necessary.

(3) Periodic replacement parts
There are no parts in this printer that require periodic replacement by a service engineer.

(4) Replacement consumables
There are no consumables that require replacement by a service engineer.

(5) Replacement of the print head
Procedures:
1) Press the Power button to turn on the printer.
2) Open the access cover.
   => The print head holder will move to the ink tank replacement position (to the left), and the Power LED remains lit.
3) Press and hold the Resume/Cancel button for 2 seconds or longer.
   => The print head holder will move to the print head replacement position (to the right), and the Power LED remains lit.
4) Raise the print head lock lever.
   => The print head can be removed from the carriage unit.
5) Replace the print head, following the instructions in the user's guide.

1-2. Customer Maintenance

Adjustment	Timing	Purpose	Tool	Approx. time
Print head cleaning	When print quality is not satisfying.	To improve nozzle conditions.	- Operation panel - Computer (settings via the printer driver)	42 sec.
Print head deep cleaning	When print quality is not satisfying, and not improved by print head cleaning.	To improve nozzle conditions.	- Operation panel - Computer (settings via the printer driver)	82 sec.
Ink tank replacement	When the ink tank becomes empty. (No ink error)	---	---	2 min.
Print head alignment	When print quality is not satisfying.	To ensure accurate dot placement.	- Operation panel - Computer (settings via the printer driver)	1 min.
Print head alignment value printing	When confirming the print head alignment values set in the printer.	To confirm the current print head alignment values.	- Operation panel	25 sec.
Language selection	When necessary.	To set the language displayed on the LCD.	- Operation panel	10 sec.
Paper feed roller cleaning	When paper does not feed properly, or the paper feed roller is soiled.	To clean the paper feed roller.	- Operation panel	2 min.
Bottom plate cleaning	After printing is performed on the wrong side of paper, or rollers inside the printer are extremely soiled.	To clean the bottom plate and platen ribs.	- Operation panel	40 sec.

1-3. Product Life

(1) Printer

Specified print volume (I) or the years of use (II), whichever comes first.

(I) Print volume: 2,000 pages (4" x 6", borderless printing, standard photo)

(II) Years of use: 5 years

(2) Print head

Print volume: 2,000 pages (4" x 6", borderless printing, standard photo)

(3) Ink tank

BCI-16 Color: Approx. 70 pages (4" x 6", borderless printing, PP-101, standard mode printing from a computer)

When do printing the Canon standard pattern on 4" x 6" Photo Paper Plus Glossy in borderless printing, with the default settings in the Windows XPdriver, using Windows XP Photo Printing Wizard. The number of pages above is an average value measured in continuous printing, using the ink tank immediately after it is unsealed until the ink runs out. The number of pages may vary depending on text, photos printed, application software,

print mode, and type of paper used. Ink is consumed at power input and during printing to protect the print head and keep print quality.

1-4. Special Tools

Name	Tool no.	Application	Remarks
MOLYKOTE PG641	CK-0562-000	To be applied to the sliding portion of the access cover arm.	In common with other models.
FLOIL KG-107A	QY9-0057-000	To be applied to the sliding portion of the carriage guide rail.	In common with other models.
EU-1	QY9-0037-000	To be applied to the carriage oil pad, and the sliding portion of the carriage shaft.	In common with other models.
GREASE ELECTRICITY IF-20	CK-8006-000	To be applied to the sliding portion of the feed roller ass'y.	In common with other models.

1-5. Serial Number Location

On the bottom shield plate.

<Part 1: MAINTENANCE>

2. LIST OF ERROR DISPLAY / INDICATIONS

Errors and warnings are displayed by the following ways:

1) Errors are indicated by the number of times the Power / Alarm LED lights / blinks.
2) Errors and warnings are displayed on the LCD monitor.
3) Errors and warnings are displayed on the printer driver's Status Monitor.

2-1. Operator Call Errors

(Alarm / Power LED lights)

LED display	Error [Error code]	Solution	Remarks
Alarm LED lit	No paper. (ASF) [1000]	Set the paper in the ASF, and press the Reset button.	
Alarm LED lit	Paper jam. [1300]	Remove the jammed paper, and press the Reset button.	
Alarm LED lit	No ink tank. [1662]	Install an ink tank, and press the Reset button.	
Alarm LED lit	- The print head is not installed, or it is not properly installed. [1401] - EEPROM data of the print head is faulty. [1403 / 1405].	- Install the print head properly, and close the access cover, or, with the print head installed, turn the printer off and on. - If the error is still not resolved, the print head may be defective. Replace the print head.	
Alarm LED lit	Warning: The waste ink absorber is almost full (approx. 95% of the maximum capacity). [1700]	Pressing the Reset button will exit the error, and enable printing. In repair servicing, replace the ink absorbers.	The service call error, indicating the waste ink absorber is full, is likely to occur soon.
Alarm LED lit	The connected digital camera or digital video camera does not support Camera Direct Printing. [2001]	After removing the cable between the camera and the printer, press the Reset button, and re-connect the cable. If the error is still not resolved, a non-supported camera may be connected. Connect a supported camera.	
	Access cover open. [1200]	Close the access cover.	

2-2. Service Call Errors

(by cyclic blinking of Alarm / Power LED, or the condition in which Alarm LED remains lit and Power LED off)

Cyclic blinking : Alarm / Power LED	Error [Error code]	Solution (Replacement of listed parts, which are likely to be faulty)
2 times	Carriage error [5100]	- Carriage unit (QM2-3257) - Timing slit strip film (QC1-5153) - Logic board ass'y (QM2-2880)[*1] - Carriage motor ass'y (QM2-1744)
3 times	Paper feed error [6000]	- Timing sensor unit (QM2-2894)

		- Timing slit disk ass'y (QL2-0843)
		- Paper feed motor ass'y (QM2-1746)
		- Feed roller ass'y (QM2-1970)
		- Platen (QC1-5176/5177)
		- Logic board ass'y (QM2-2880)[*1]
4 times	Purge unit error [5C00]	- Purge unit (QM2-1975)
		- Logic board ass'y (QM2-2880)[*1]
5 times	ASF cam sensor error [5700]	- Sheet feed unit (QM2-3264)
6 times	Internal temperature error [5400]	- Logic board ass'y (QM2-2880)[*1]
7 times	Waste ink absorber full [5B00]	- Ink absorber (QC1-5195 / 5196 / QY5-0162)
		- After replacement of the ink absorber, reset the EEPROM (waste ink amount value) on the logic board ass'y.
8 times	Print head temperature rise error [5200]	- Print head (QY6-0056)
		- Logic board ass'y (QM2-2880)[*1]
9 times	EEPROM error [6800]	- Logic board ass'y (QM2-2880)[*1]
Continuous alternate blinking	ROM error	- Logic board ass'y (QM2-2880)[*1]
Alarm LED lit / Power LED off	RAM error	- Logic board ass'y (QM2-2880)[*1]

*1: Before replacement of the logic board ass'y, check the waste ink amount (by service test print or EEPROM information print). If the waste ink amount is 7% or more, also replace the ink absorbers (QC1-5195 / 5196 / QY5-0162) when replacing the logic board ass'y.
[See Section 3-3. Adjustment / Settings, (6) Service mode, for details.]

2-3. Warnings

Printer (displayed via the Status Monitor or on the LCD monitor, no LED indication):

Displayed warning	Remarks
Ink low warning 1 (approx. half level)	The warning is displayed only when printer driver's Low Ink Warning Setting is enabled.
Ink low warning 2 (low remaining ink, display of "!" in the warning)	The warning is displayed only when printer driver's Low Ink Warning Setting is enabled.
Ink low warning 3 (ink level unknown, display of "?" in the warning)	The warning is displayed only when printer driver's Low Ink Warning Setting is enabled.
Print head temperature rise	If the print head temperature is high when the access cover is opened, the warning is displayed.[*1]
	When the print head temperature falls below the specified temperature, the warning is released.
Protection against excess rise of the print head temperature	If the print head temperature exceeds the specified limit, a Wait is inserted during printing,
	When the print head temperature falls below the specified temperature, the warning is released.

*1: If the warning is displayed, the carriage does not move to the ink tank replacement position when the access cover is opened.

2-4. Troubleshooting by Symptom

	Symptom	Solution

Faulty operation	The power does not turn on.
	The power turns off immediately after power-on.
		Replace the
		  - AC adapter, or
		  - logic board ass'y[*1].

	The print head is not recognized.
	The print head does not return to the home position.
		Remove and re-install the print head, or replace the
		  - print head, or
		  - logic board ass'y[*1].

	Strange noise.	Remove foreign material, or attach a removed part if any.
	Printing stops mid-way.	Replace the logic board ass'y[*1].
LCD display	Display flickers.	Check images within the memory card. Or replace the LCD viewer unit, the card board unit, or the logic board ass'y.[*1]
	No display (the whole black screen or whole white screen)	Replace the LCD viewer unit, or the logic board ass'y[*1].
	Streaks are present in the LCD.	Check images within the memory card. Or replace the LCD viewer unit or the card board unit.

Paper feed problems	Multiple sheets feed.	Replace the
		  - sheet feed unit, or
		  - output tray unit.

	Paper does not feed.	Remove foreign material, or replace the
		  - sheet feed unit, or
		  - output tray unit.

	Paper feeds at an angle.	Remove foreign material, or adjust the paper guide, or replace the
		  - sheet feed unit, or
		  - output tray unit.

Unsatisfactory print	No printing, or no color ejected.	Replace the
		  - ink tank,
		  - print head[*2],
		  - logic board ass'y[*1], or
		  - purge unit.

	Printing is faint, or white lines appear on printouts even after print head cleaning.
	Line(s) not included in the print data appears on printouts.
		Remove and re-install the print head, or replace the
		  - ink tank,
		  - print head[*2],
		  - purge unit, or
		  - logic board ass'y[*1].

	Paper gets smeared.	Feed several sheets of paper, perform bottom plate cleaning[*3], or clean the paper path with cotton swab or cloth.

	A part of a line is missing on printouts.	Replace the
		  - ink tank, or
		  - print head[*2].

	Color hue is incorrect.	Replace the

quality		- ink tank, or
		- print head[2], or
		perform print head alignment.
	Printing is incorrect.	Replace the logic board ass'y[1].
	Non-ejection of ink.	Replace the - ink tank, or - print head[2].
	Graphic or text is enlarged on printouts.	When enlarged in the carriage movement direction, clean grease or oil off the timing slit strip film, or replace the - timing slit strip film, - carriage unit, or - logic board ass'y[1]. When enlarged in the paper feed direction, clean grease or oil off the timing slit disk ass'y, or replace the - timing slit disk ass'y, - timing sensor unit, or - logic board ass'y[1].

*1: Before replacement of the logic board ass'y, check the waste ink amount (by service test print or EEPROM information print). If the waste ink amount is 7% or more, also replace the ink absorbers (QC1-5195 / 5196 / QY5-0162) when replacing the logic board ass'y.
[See Section 3-3. Adjustment / Settings, (6) Service mode, for details.]

*2: Replace the print head only after the print head deep cleaning is performed 2 times, and when the problem persists.

*3: To perform bottom plate cleaning, with the printer power turned on, use of operation panel buttons with the LCD monitor (Menu -> Tool Box -> Maintenance). For details, see Section 3-3. Adjustment / Settings, (5) User mode.

3. REPAIR

3-1. Notes on Service Part Replacement

Service part	Notes on replacement[*1]	Adjustment / settings	Operation check
Logic board ass'y (QM2-2880)	- Before removal of the logic board ass'y, remove the power cord, and allow for to sit approx. 1 minute (for discharge of capacitor's accumulated charges), to prevent damage to the logic board ass'y. - Before replacement, check the waste ink amount (by service test print or EEPROM information print). If the waste ink amount is 7% or more, also replace the ink absorbers when replacing the logic board ass'y. [See 3-3. Adjustment / Settings, (6) Service mode, for details.]	**After replacement:** 1. Initialize the EEPROM. 2. Reset the waste ink counter. 3. Set the destination in the EEPROM. [See 3-3. Adjustment / Settings, (6) Service mode, for details of 1 to 3] 4. Set the LCD display language in the user mode. 5. Perform the print head alignment in the user mode.	- Service test print - EEPROM information print - Printing via USB connection - Digital Camera Direct Printing - Memory Card Direct Printing - Infrared Printing
Ink absorber (QC1-5195 / 5196 / QY5-0162)		**After replacement:** 1. Reset the waste ink counter. [See 3-3. Adjustment / Settings, (6) Service mode.]	- Service test print - EEPROM information print
LCD viewer unit (QM2-3266) Panel board ass'y (QM2-3267)		**After replacement:** 1. Operation panel button / LCD monitor test [See 3-3. Adjustment / Settings, (6) Service mode.]	- Operation panel button / viewer test
Carriage unit (QM2-3257)		**At replacement:** 1. Apply grease to the entire surface of the carriage oil pads (2 pcs.). 2. Apply grease to the sliding portions. [See 3-3. Adjustment / Settings, (3) Grease application.] **After replacement:** 1. Perform the print head alignment in the user mode.	- Service test print
Paper feed motor ass'y (QM2-1746)	- The red screws securing the paper feed motor are allowed to be loosened. (For any purposes other than paper feed motor replacement, DO NOT loosen them.)	**After replacement:** 1. Adjust the paper feed motor. [See 3-3. Adjustment / Settings, (1) Paper feed motor adjustment.]	- Service test print
Pump unit (QM2-1979), Purge Tube (QC1-5555), Pump Drive Gear (QC1-5253)		**After replacement:** Perform the pump unit adjustment. [See 3-3. Adjustment / Settings, (2) Pump unit adjustment.]	- Service test print
Carriage shaft		**At replacement:**	- Service test print

(QC1-5150)		1. Apply grease to the sliding portions. [See 3-3. Adjustment / Settings, (3) Grease application.]	
Timing slit strip film (QC1-5153)	- Upon contact with the film, wipe the film with ethanol. - Confirm no grease is on the film. (Wipe off any grease thoroughly with ethanol.) - Do not bend the film.	**After replacement:** 1. Perform the print head alignment in the user mode.	- Service test print
Timing slit disk ass'y (QL2-0843)			
Print head (QY6-0056)		**After replacement:** 1. Perform the print head alignment in the user mode.	- Service test print

*1: General notes:

- Make sure that the flexible cables and wires in the harness are in the proper position and connected correctly.

[See 3-2. Special Notes on Repair Servicing, (1) Flexible cable and harness wiring, connection, for details.]

- Do not drop the ferrite core, as it may damage the core.
- Protect electrical parts from damage due to static electricity.
- Before removing a unit, after removing the power cord, allow the printer to sit for approx. 1 minute (for capacitor discharging to protect the logic board ass'y from damages).
- Do not touch the timing slit strip film and timing slit disk ass'y. No grease or abrasion is allowed.
- Protect the units from becoming soiled with ink.
- Protect the housing from scratches.
- Exercise caution with the red screws, as follows:

    i. The red screws of the paper feed motor may be loosened only at replacement of the paper feed motor ass'y (DO NOT loosen them in other cases).

    ii. DO NOT loosen the red screws on both front sides of the main chassis, securing the carriage guide rail positioning (they are not adjustable in servicing).
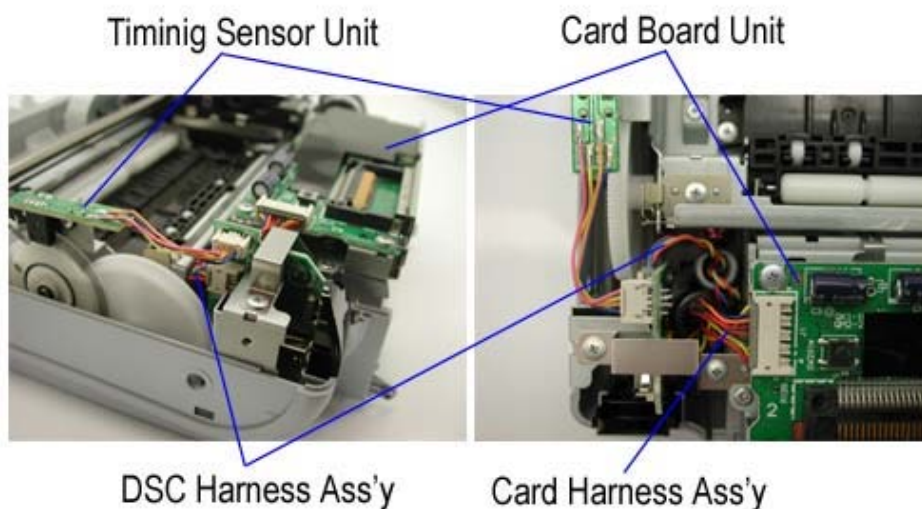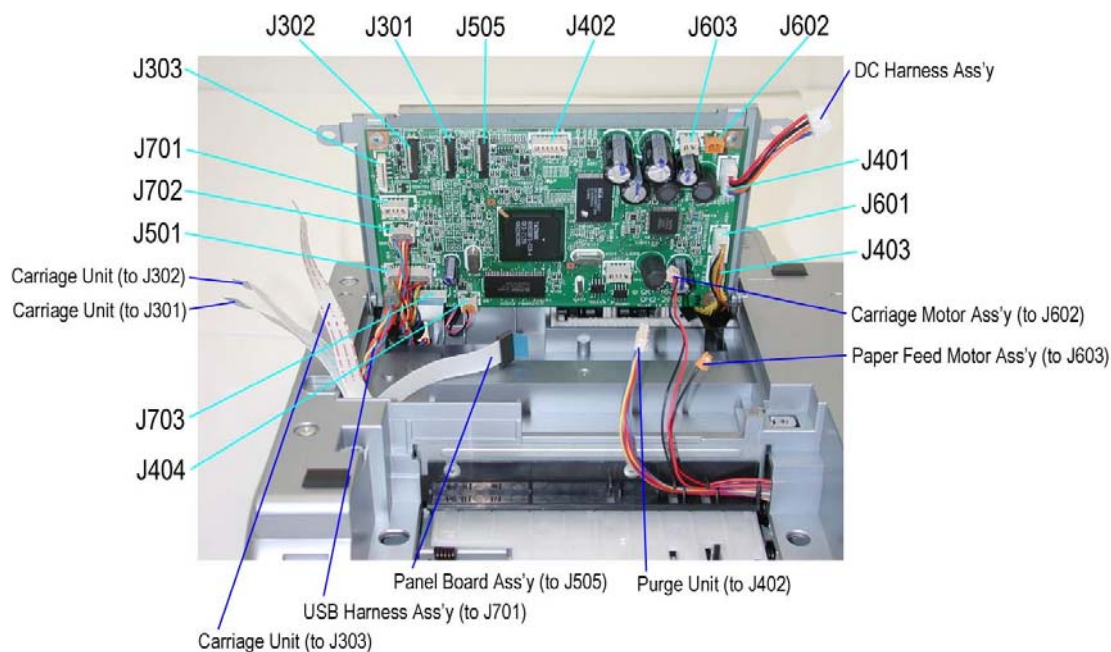
3-2. Special Notes on Repair Servicing

(1) Flexible cable and harness wiring, connection

Exercise care when handling the flexible cables and harness wiring. Improper wiring or connection may cause a short-circuit, and may lead to ignition or emission of smoke.

(I) Panel board ass'y and front I/F unit wiring

(II) Logic board ass'y wiring

J301, J302, J303: Carriage Flat Flexible Cable (Carriage Unit) connectors

J401: DC Harness ass'y connector

J402: PE sensor and PG sensor connector

J403: Connected to the PF/ASF sensor inside the sheet feed unit

J404: Battery holder ass'y harness connector

J501: Card harness ass'y connector

J505: Panel cable unit connector

J601: Connected to the AP motor harness inside the sheet feed unit

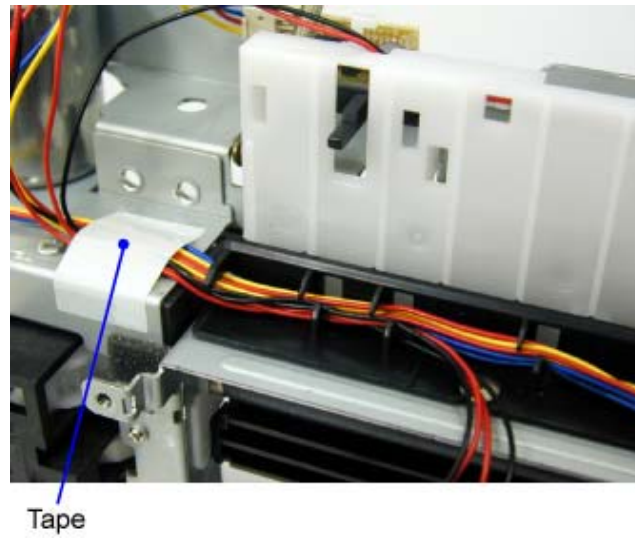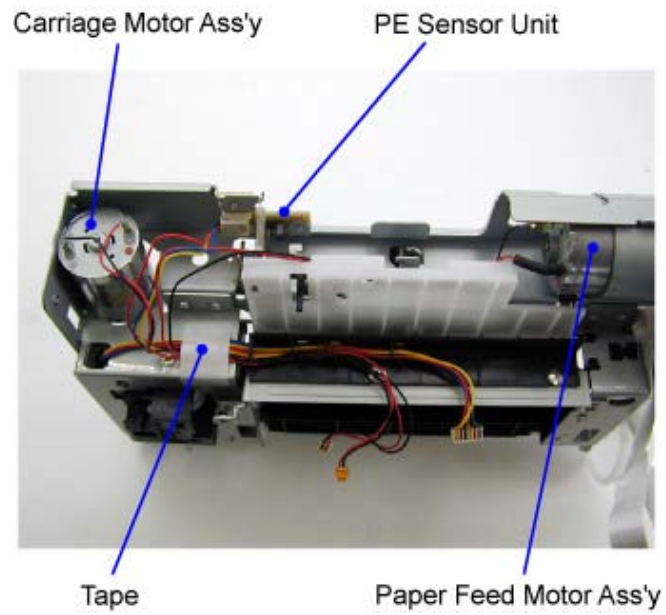J602: Carriage motor ass'y connector

J603: Paper feed motor ass'y connector
J701: USB harness ass'y connector
J702: DSC harness ass'y connector
J703: IR cable connector

(III) Printer unit wiring

Carriage Motor Ass'y   PE Sensor Unit

Tape   Paper Feed Motor Ass'y

Tape

<Enlarged View>

PG/PE Sensor Harness (Purge Unit)

DC Harness Ass'y

Bottom Case Ass'y

Paper Feed Motor Ass'y

Carriage Motor Ass'y

Logic Board Ass'y

<Wiring of Logic Board Ass'y assembled in Bottom Case Ass'y>
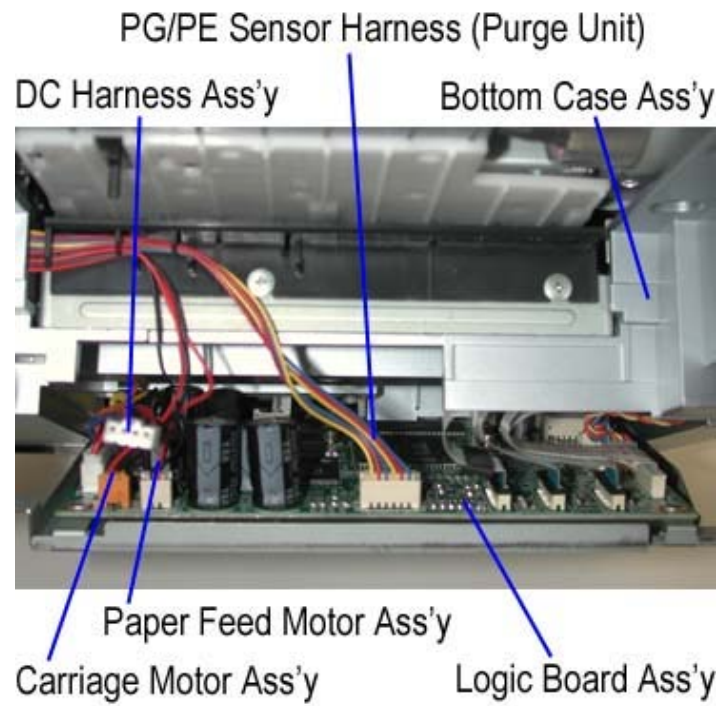
(IV) Paper feed motor ass'y wiring
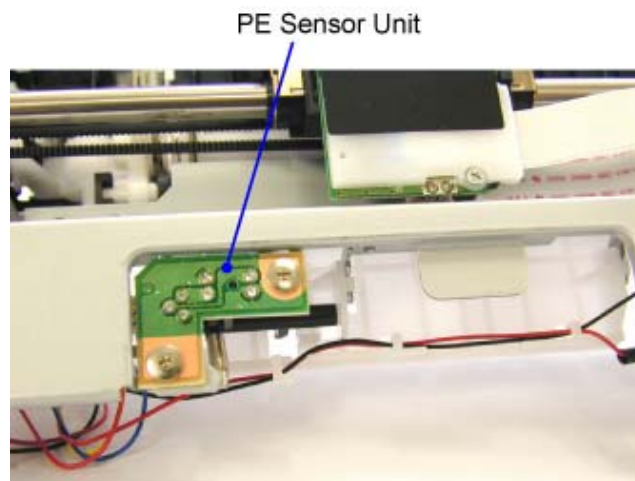
PE Sensor Unit

(V) Carriage motor ass'y and PE sensor harness wiring

Carriage Motor Ass'y

PE Sensor Unit

(VI) Front I/F unit wiring

J3 (to Timing Sensor Unit)

IR Cable

DC Harness Ass'y
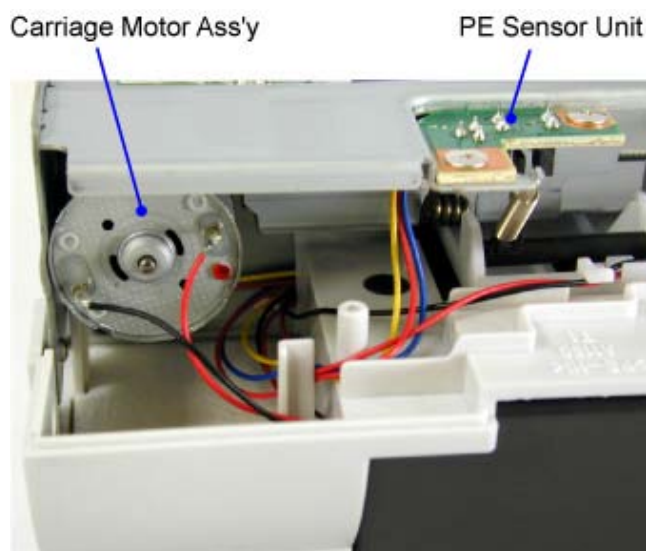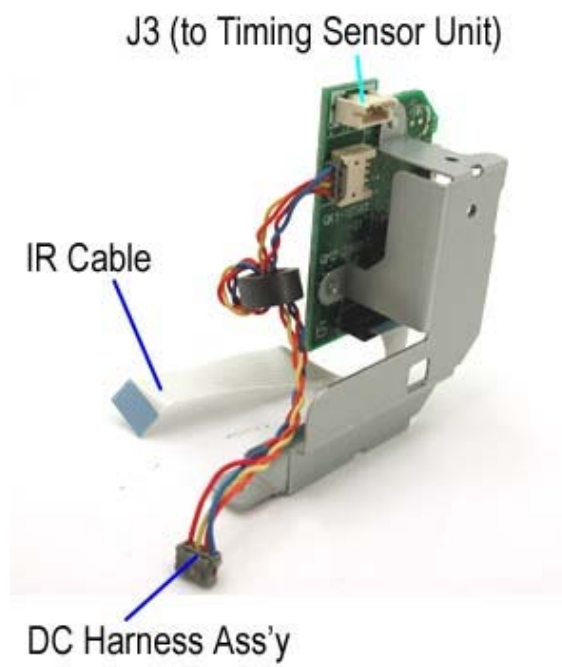
(VII) Rear I/F unit wiring

USB Harness Ass'y

(VII) Panel cable unit wiring

Panel Cable Unit

Bottom Case Ass'y

<Wiring in Bottom Case Ass'y>

Panel Board Ass'y

LCD Viewer Unit   Panel Cable Unit

Access Panel Ass'y   Main Cover Unit

<Wiring in Access Panel Ass'y / Main Cover Ass'y>

<Part 1: 3. REPAIR (2)-1>
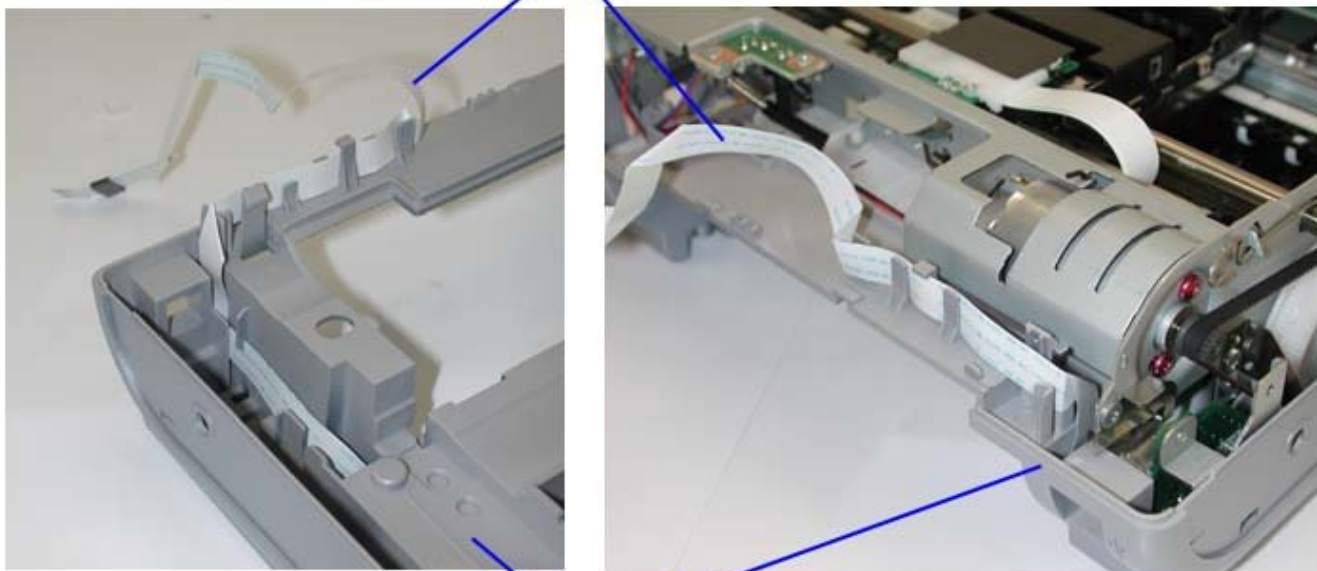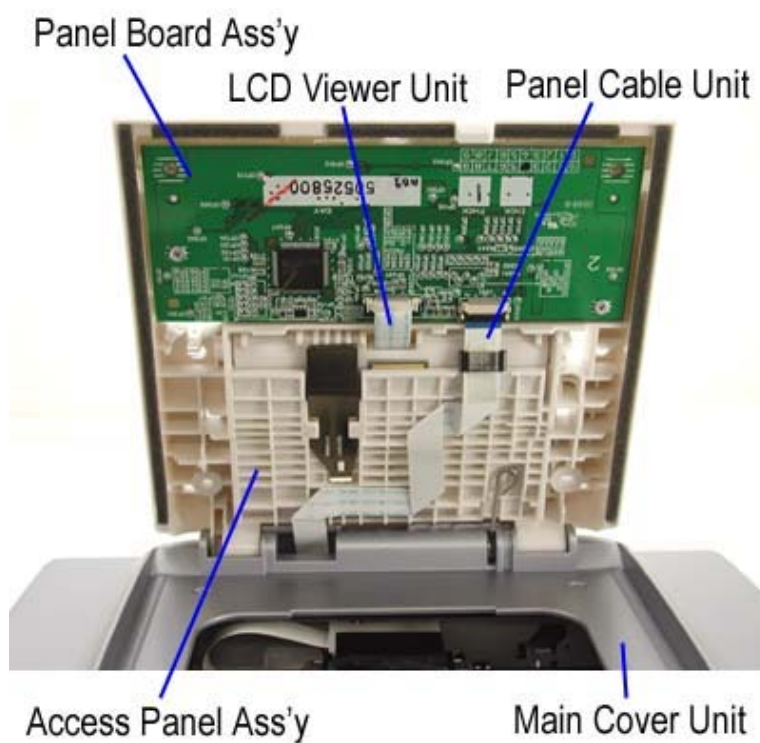
(2) Notes on disassembly and re-assembly

For DS810, only removal methods of external parts which are different from DS700 are described.
Since external parts of DS810 contains the mirror / coated parts, make sure not to scratch or smear them.
For notes on disassembly and re-assembly of parts other than the parts shown below, refer to DS700 Service Manual.

- **Access Sub Panel removal**

From the rear side of the printer, remove the access sub panel by lifting it frontward using fingers.
(There are seven claws. Make sure not to break (not even whiten) them.)

- **Output Tray Unit removal**

1) Release the left hook, pulling out the left side of the paper tray. (Release the left side first, then the right side.)

2) Release the hook, pushing the both sides of the paper output tray.
* After lifting the printer's left side, release the hook (the left hook first) with the paper output tray declined.
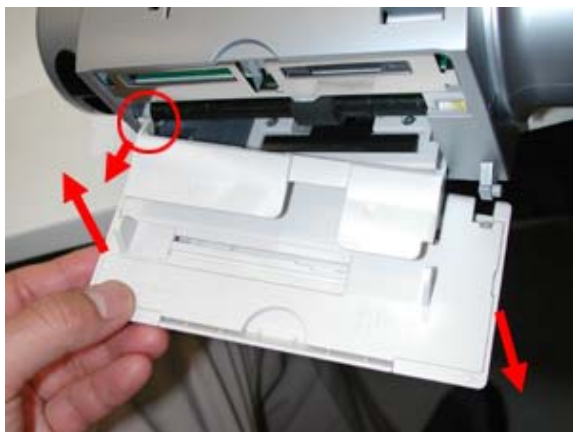
- **Front Cover removal**

1) Remove the screw from the bottom face.

2) Release the two claws of the front cover from the lower right / left part of the main cover main cover. (Release the left claw first and the right claw next.)
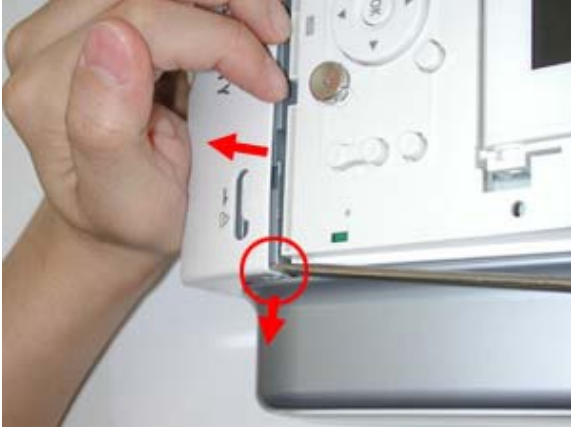
3) Release the two claws of the front cover from the lower right / left part of the bottom case.
   (After lifting the printer's left side, release the left claw first with the paper output tray declined.)

- **Side Cover R removal**

  From the printer's bottom face, lift and remove the side cover R, using a flathead screwdriver or the like.

- **Side Cover L removal**

  Open the access panel cover and remove the side cover L by pushing its protruding portion from the printer's inside.

- **Access Panel / Access Panel Shield Plate removal**

  1) Remove the two screws from the upper portion of the access panel with the access panel cover closed.

  2) With the access panel cover open, remove the two screws from the shield plate which is located behind the access panel.

  3) Removing the hanging springs, detatch the access panel shield plate.

  4) Remove the panel cable unit from the connector first, and from the access panel next.

5) Remove the the right / left hinges of the access cover from the main cover.
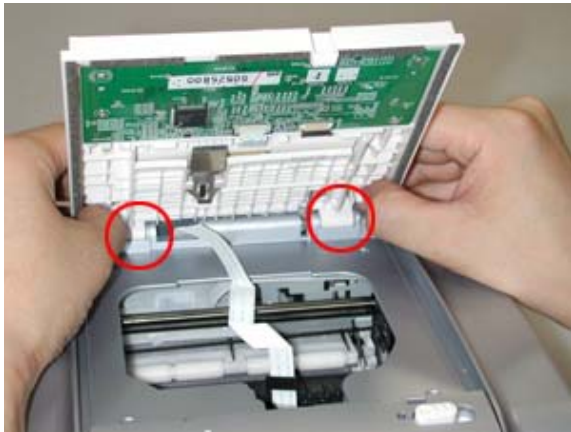
- **Main cover unit removal**

1) Remove 2 screws from the left side and 2 screws from the right side.

<Right Side>   <Left Side>

2) Release the two claws on the back side.

3) Release the two claws located at the right / left side of the front side.

3-3. Adjustment / Settings

As the following adjustments / settings (excluding user mode and service mode) for DS810 are the same as those for DS700, see DS700 Service Manual for details as a reference.

For DS810, access cover gear phase adjustment and grease application on the access cover are not necessary.

   (1) Paper feed motor adjustment

    (2) Pump unit adjustment

    (3) Grease application

    (4) Waste ink counter setting

(5) User mode

Function	Procedures	Remarks
Nozzle check pattern printing	Use of operation panel buttons with the LCD monitor (Menu -> Tool box -> Maintenance)	Available through the printer driver utility functions as well
Print head cleaning	Use of operation panel buttons with the LCD monitor (Menu -> Tool box -> Maintenance)	Available through the printer driver utility functions as well
Print head deep cleaning	Use of operation panel buttons with the LCD monitor (Menu -> Tool box -> Maintenance)	Available through the printer driver utility functions as well
Print head alignment	Use of operation panel buttons with the LCD monitor (Menu -> Tool box -> Maintenance)	Available through the printer driver utility functions as well
Print head alignment values printing	Use of operation panel buttons with the LCD monitor (Menu -> Tool box -> Maintenance)	
Language selection[*1]	Use of operation panel buttons with the LCD monitor (Menu -> Tool box -> each setting)	
Paper feed roller cleaning	Use of operation panel buttons with the LCD monitor (Menu -> Tool box -> Maintenance)	Set several sheets of 4" x 6" sized paper with the non-print side facing up.
Bottom plate cleaning	Use of operation panel buttons with the LCD monitor (Menu -> Tool box -> Maintenance)	Set Canon genuine paper MP-101 4" x 6", GP-401 4" x 6", or GP-501 4" x 6" in the auto sheet feeder.
LCD viewer contrast adjustment	Use of operation panel buttons with the LCD monitor (Menu -> Tool box -> each setting -> other setting)	
Print head friction prevention	Paper thickness lever: right side -> left side	
Print head replacement	Press and hold the Stop / Reset button for more than two seconds at the ink tank replacement position -> moves to the print head replacement position	

*1: Selectable from among the following 15 languages in the user mode (through operation panel buttons with the LCD monitor):

LG = 01 Japanese

LG = 02 English
LG = 03 S. Chinese
LG = 04 German
LG = 05 French
LG = 06 Italian
LG = 07 Spanish
LG = 08 Dutch
LG = 09 Portuguese
LG = 0B Swedish
LG = 0E Russian
LG = 0F Czecho
LG = 10 Hungarian
LG = 11 Polish

(6) Service mode

Function	Procedures	Remarks
Service test print	See "Service mode operation procedures" below.	Set a sheet of 4" x 6"(101.6 mm x 152.4 mm)-sized paper. For a print sample, see 3-4. Verification Items, (1) Service test print.
EEPROM information print	See "Service mode operation procedures" below.	Set a sheet of 4" x 6"(101.6 mm x 152.4 mm)-sized paper. For a print sample, 3-4. Verification Items, (2) EEPROM information print.
EEPROM initialization	See "Service mode operation procedures" below.	The following item is NOT initialized: - Waste ink counter
Waste ink counter reset	See "Service mode operation procedures" below.	If the waste ink amount is 7% or more, replace the ink absorbers.
Destination settings	See "Service mode operation procedures" below.	The LCD monitor display language is set in the user mode.
Print head deep cleaning	See "Service mode operation procedures" below.	Cleaning of all colors at the same time.
Operation panel buttons / LCD monitor display checking	See "Service mode operation procedures" below.	Checking on the operation panel buttons operation and the LCD viewer display

<Service mode operation procedures>

1) With the printer power turned off, while pressing the Reset button, press and hold the Power button. (DO NOT release the buttons.) (The Power LED lights.)

2) While holding the Power button, release the Reset button. (DO NOT release the Power button.)

3) While holding the Power button, press the Reset button 2 times, and then release both the Power and Reset buttons. (Each time the Reset button is pressed, cycles of blinking of the Alarm LED and Power LED start and a mode becomes the menu selection.)

4) When the LED lights in green, press the Reset button the specified number of time (s) according to the function listed in the table below. (Each time the Reset button is pressed, cycles of blinking of the Alarm LED and Power LED start.)

Time(s)	LED lit	Function	Remarks
0 times	Power LED	Power off	Even when the print head is not installed, the carriage returns and locks in the home position.
1 time	Alarm LED	Service test print	See 3-4. Verification Items, (1) Service test print.
2 times	Power LED	EEPROM information print	See 3-4. Verification Items, (2) EEPROM information print.
3 times	Alarm LED	EEPROM initialization	The waste ink counter value is not reset.
4 times	Power LED	Waste ink counter resetting	
5 times	Alarm LED	Destination settings	Proceed to the following step 5), and follow the Destination settings procedures.
6 times	Power LED	Print head deep cleaning	
11 times	Alarm LED	Operation panel buttons / LCD monitor display checking	After the following step 5), follow signal switching procedures through the operation panel buttons / LCD monitor display checking.

7 to 10 times More than 12 times	7, 9 times: Alarm LED 8, 10, 12 times: Power LED	Returns to the menu selection		

5) After the function (menu) is selected, press the Power button. The Power LED lights, and the selected function is performed. (When the operation completes, the printer returns to the menu selection mode automatically.)

   Note: To exit the service mode, press the Power button.

<**Destination settings procedures**>

In the destination settings mode, press the Reset button the specified number of time(s) according to the destination listed in the table below, and press the Power button.

After setting the destination, operate EEPROM initialization indicated in Service mode operation procedures above.

Time(s)	LED	Destination	Paper setting
0 times	Power LED	No destination change	-
1 time	Alarm LED	JPN	L
2 times	Power LED	KRN	4 x 6
3 times	Alarm LED	US	4 x 6
4 times	Power LED	EUR	4 x 6
5 times	Alarm LED	AU	4 x 6
6 times	Power LED	ASA	4 x 6
7 times	Alarm LED	CN	4 x 6
8 times	Power LED	TW	4 x 6
9 times or more	Power LED	Returns to the destination settings mode	-

   Note: After setting the destination, confirm the settings in the service test print or EEPROM information print.
   [See 3-4. Verification Items, (1) Service test print, or (2) EEPROM information print.]

<**Operation panel buttons / LCD monitor display checking**>

After a mode is shifted to the operation panel button / LCD monitor display, check the panel buttons operation and the LCD monitor display by implementing
the following procedures.

1) When the Stop / Reset button was pressed one time, the entire LCD monitor screen is changed to blue.
   (If an error occurs, the Alarm LED lights.)

2) When each button (excluding Power, Stop / Reset, and OK button) on the operation panel is pressed, a part of screen is changed to red accordingly.

   For the color change (blue -> red) in the screen by each button operation, see the diagram below.
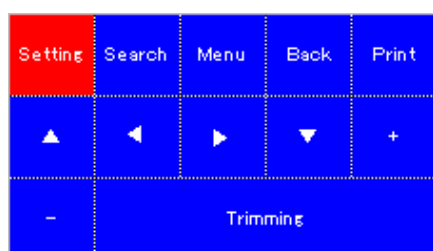
3) When all buttons excluding the Power, Stop / Reset, and OK button are pressed, the entire screen is changed to red.
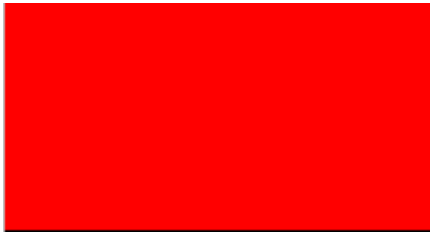
4) When the access cover is opened with the entire screen being red, the following color pattern is displayed.
When the access cover is opened without the entire screen becoming red in step 3), the following color pattern is not displayed.
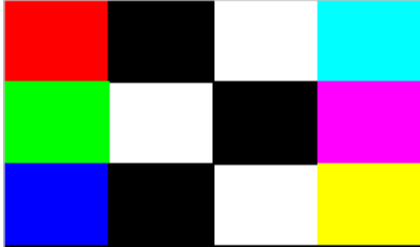
5) When the Power button is pressed, a mode returns to the service mode menu selection.

3-4. Verification Items

(1) Service test print

After repair, perform service test print, and confirm the items below.

Note: Use a sheet of 4" x 6" (101.6 mm x 152.4 mm)-sized paper.

<Print check items>

On the service test print (sample below), confirm the following items:

- Check 1, top of form accuracy: The line shall not extend off the paper.
- Check 2, EEPROM information: Destination settings, waste ink amount, etc.
- Check 3, nozzle check pattern: Ink shall be ejected from all nozzles.
- Check 4, halftone: There shall be no remarkable streaks or unevenness.
- Check 5, vertical straight lines: The line shall not be broken.

<Service test print sample>
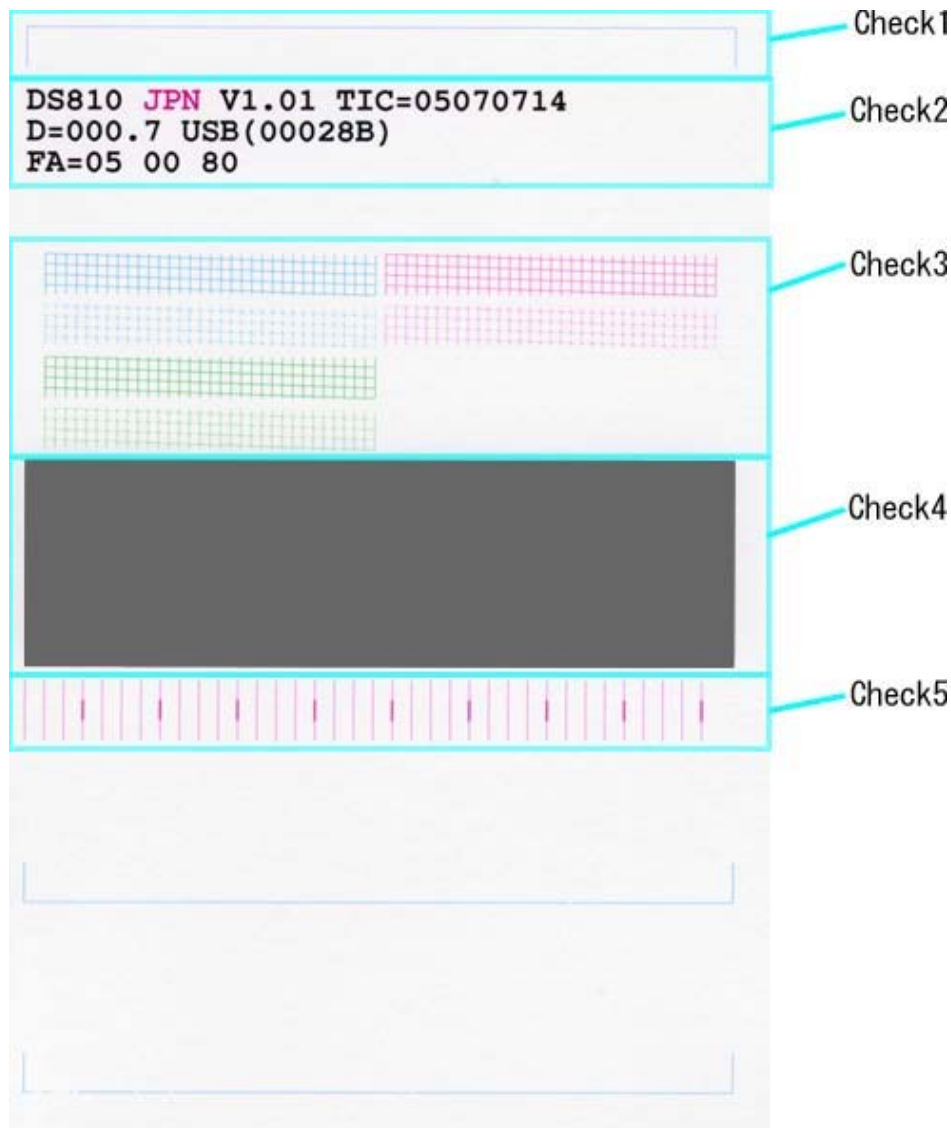
(2) EEPROM information print

<How to read the EEPROM information print>

Print sample:

1:01 2:DS810 3:V1.01 4:IF(USB=1) 5:D=010.7 6:ST=2005/06/23-08:57

7:ER(ER0=1000 ER1=0000) 8: LPT=2005/07/06-15:11

9: PC(M=0041 R=001 T=001 D=002 C=003)

10: CLT(2005/07/06-15:00)
11:CH=00001 12:CT=00003 13:IS(C=0 M=0 Y=0) 14:IC(C=00016 M=00016 Y=00016)
15:P_ON(S=00006 H=00005) 16:P_OFF(S=00005) 17:M_REG=0
18:UR(A(Coe)=-01 B(SCoe)=+01 C(CLbi)=000 D(SCLbi)=+01)
19:LG=01 Japanese 20:WP=0193 21:CDIN(LG=000 PB=000 OPB=000)
22:BTIN=0 23:MSD(020)
24:PAGE(All=00133 PP=00000 HR+MP=00021 PR+SP+SG=00108 GP=00004
   PC=00000) 25:CDPAGE(All=00000) 26:EDGE=00000 27:L=00120
28:DCR=001 29:DCRC=00000 30:Head Temp=26.5
31:Env Temp=26.5 32:FF(80 00 05) 33:OPP=00000 34:BTPAGE=00025 35:PrnB=00000
36:Seal=00000 37:CardPaper=00039 38:CardIns(0030) 39:CardPrn(0077)
40:CDD-PR(L=005 PC=005) 41:CDD-SP(L=010 PC=017)
42:CDD-MP(L=008 PC=000) 43:DCD-PP(L=001 PC=000)
44:DCD-FPP(L=002 PC=000) 45:DCD-MPP(L=003 PC=000)
HDEEPROM
46:V0001 47: SN=0001-0D7B
48:LN(00000 00000 00000 00003 00013 00017 00015) 49:ID=05
50:IL=(C=000 M=000 Y=000)

Printed items:

 1: Destination setting
 2: Model name (same for the all destinations)
 3: ROM version
 4: USB I/F connection
     Once the printer is connected via USB, "IF(USB=1)" is printed.
 5: Waste ink amount (%) (D: Drain)
 6: Installation date and time (ST: Set Time)
 7: Operator call / service call error record (ER0 = latest error, ER1 = previous error)
 8: Last printing time (last time before an error) (LPT: Last Print Time)
 9: Purging count (PC: Purge Count) (M = manual cleaning, R = (Refreshing) deep cleaning, T = timer cleaning, D = cleaning by dot count, C = cleaning at ink tank / print head)
10: Last cleaning time (CLT: Cleaning Time)
11: Print head replacement count (CH: Change Head)
12: Ink tank replacement count (CT: Change Tank)
13: Ink status (IS: Ink Status)
     The number 0, 1, 2, or 3, corresponding to the Low Ink Warning level is printed.
14: Total ink consumption (IC: Ink Consumption) in mg
15: Power-on count (S = soft-power-on, H = hard-power-on)
16: Power-off count (S = soft-power-off)
17: Manual print head alignment by user (1 for performed, 0 for not performed)
18: User print head alignment value (UR: User Registration)
19: Language setting (LG: Language)
     The specified language is printed.

               LG=01 Japanese
               LG=02 English
               LG=03 S.Chinese
               LG=04 German
               LG=05 French
               LG=06 Italian
               LG=07 Spanish
               LG=08 Dutch
               LG=09 Portuguese
   LG=0AB Swedish
               LG=0E Russian
               LG=0F Czecho

20: Wiping count (WP = Wiping)

21: Camera Direct Print-supported device connection record (CDIN: Camera Direct Insert)

  LG = Legacy (Canon Bubble Jet Direct), PB = Canon PictBridge, OPB = Other PictBridge

22: Bluetooth-supported device connection record (BTIN = Bluetooth Insert)

23: Longest period of non-printing (MSD: Maximum Stop Date)

24: Number of pages fed (total, plain paper, High Resolution Paper & Matte Photo Paper, Photo Paper Pro & Photo Paper Plus Glossy
  & Photo Paper Plus Semi-gloss, Glossy Photo Paper, postcard)

25: Camera Direct print pages in total (CDPAGE: Camera Direct PAGE)

26: Borderless print pages

27: L & 4x6 print pages

28: Number of times dot count is reset (DCR: Dot Count Reset)

  The number of times ink counter reset is performed (OK is clicked) at Ink Low Warning 2 or 3.

29: Number of times dot count reset is cancelled (DCRC: Dot Count Reset Cancel)

  The number of times ink counter reset is cancelled at Ink Low Warning 2 or 3.

30: Print head temperature

31: Inside temperature

32: Line inspection information (FF: Factory Function) (Not used in field service)

33: Other Photo Paper pages fed (Not used in field service, as the DS810 does not support Other Photo Paper.)

34: Bluetooth printing pages fed (BrnB=Print Beam) (not counted for Bluetooth printing only)

35: Print Beam printing pages fed (PrnB: Print Beam) (by IRDA & Bluetooth printing)

36: Photo Sticker pages fed

37: Name card- / Credit Card-sized paper pages fed

38: Number of times a memory card is used

39: Memory Card Direct print pages in total

40: Memory Card Direct print pages: Photo Paper Pro (L/4x6, Japanese postcard)

41: Memory Card Direct print pages: Photo Paper Plus Glossy (L/4x6, Japanese postcard)

42: Memory Card Direct print pages: Matte Photo Paper (L/4x6, Japanese postcard)

43: Camera Direct print pages: Photo Paper (L/4x6, Japanese postcard)

44: Camera Direct print pages: Fast Photo Paper (L/4x6, Japanese postcard)

45: Camera Direct print pages: Matte Photo Paper (L/4x6, Japanese postcard)

HDEEPROM

46: Version

47: Serial number

48: Lot number

49: Print head ID

50: Ink ejection level (C/M/Y)
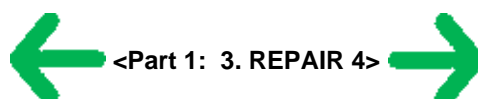
4. PRINTER TRANSPORTATION

This section describes the procedures for transporting the printer for returning after repair, etc.

1) Keep the print head and ink tank installed in the carriage.
   [See Caution 1 below.]

2) Turn off the printer to securely lock the carriage in the home position. (When the printer is turned off, the carriage is automatically locked in place.)
   [See Caution 2 below.]

3) Attach the left / right side packing and accessory packing to protect the printer, and set in the packing box.
   Note: If the packing used when the box was opened is not available, use packing of the same grade.
   [See Caution 3 below.]

Caution:

(1) If the print head is removed from the printer and left alone by itself, ink is likely to dry. For this reason, keep the print head installed in the printer even during transportation.

(2) Securely lock the carriage in the home position, to prevent the carriage from moving and applying stress to the carriage flexible cable or causing ink leakage during transportation.

(3) Attach the accessory and side packing to the printer when transporting it, to prevent the print head face surface from contacting the purge base, and from scratching the nozzles.

Memo:

If the print head must be removed from the printer and transported alone, perform the following:

(1) Install the ink tank (to prevent the nozzles from drying).

(2) Attach the protective cap (used when the packing was opened) to the print head (to protect the print head face from damage due to shocks).

Part 2

TECHNICAL REFERENCE

←→

1. NEW TECHNOLOGIES

< Main difference from DS700 >

	DS810	DS700
(1) AC adapter	Multi-supported AC100 - 240V 50/60Hz	AC100 - 120V 50/60Hz AC220 - 240V 50/60Hz
(2) Memory card images display	The mounted 2.5 color LCD monitor (TV screen output: not supported)	TV screen
(3) Throughput	Camera Direct printing (standard photo image) PP-101/4x6/borderless printing (Default): Approx. 63 sec.	Camera Direct printing (standard photo image) PP-101/4x6/borderless printing (Default): Approx. 85 sec.
(4) Print mode	Card Direct printing (Photo Plus Glossy): High, Standard	Card Direct printing (Photo Plus Glossy): Standard only
(5) Supported paper size (max.)	Printing from a computer: 4 x 8 Card / Camera Direct printing: 4 x 6	Printing from a computer: 4 x 6 Card / Camera Direct printing: 4 x 6
(6) Bluetooth	Supported by using the optional BU-20. Supported model: A mobile phone / PDA incorporating Bluetooth, compliant with OPP (Object Push Profile) or BIP (Basic Imaging Profile) Printable data: Image (JPEG only) Supported paper type: As with Infrared printing	Not supported
(7) Other	Additional function: - Correction of images (a mobile phone) - Red eye reduction	---

<Part 2: 1. NEW TECHNOLOGIES>

2. CLEANING MODE AND AMOUNT OF INK PURGED

To prevent printing problems due to bubbles, dust, or ink clogging, print head cleaning is performed before the start of printing, except in the following cases:

- Cleaning on arrival: Performed when the access cover is closed.
- Cleaning by dot count: Performed after ejection of paper.
- Manual cleaning / deep cleaning: Performed manually.

<Cleaning mode list>

Color: C / M / Y

Condition	Details	Est. amount of ink used (g)	Est. required time (sec.)
On arrival of the printer	First cleaning after shipped from the plant.	0.48	82
Dot count cleaning	When the specified number of dots are printed since the previous cleaning.	0.16	42
Timer cleaning - 1	If 504 to 720 hours have elapsed since the previous cleaning till the start of the next printing.	0.16	42
Timer cleaning - 2	If more than 720 hours have elapsed since the previous cleaning till the start of the next printing.	0.32	62
At print head replacement	When the print head is removed and installed.	0.48	82
At ink tank replacement		0.32	62
Head cleaning	- Via the printer button - Via the printer driver - Via the operation panel buttons on the LCD monitor	0.16	42
Deep cleaning	- Via the printer driver - Via the operation panel buttons on the LCD monitor	0.48	82
If the print head has not been capped for more than 1 hour before power-on		0.32	62

3. PRINT MODE

3-1. Resolution during Printing via Computer

Paper type	Paper setting	Print direction, ink used, and resolution (dpi)				
		Quality 1	Quality 2 (High)	Quality 3 (Standard)	Quality 4 (Draft)	Quality 5
Photo Paper Pro (PR-101 4x6)	Photo Paper Pro	16 pass-bidirectional 4800x1200 2pl	12 pass-bidirectional 1200x600 2pl	6 pass-bidirectional 1200x600 2pl/5pl		
Photo Paper Plus Glossy (PP-101 4x6) Photo Paper Plus Semi-gloss (SG-101 4x6)	Photo Paper Plus Glossy		12 pass-bidirectional 1200x600 2pl	4 pass-bidirectional 1200x600 2pl/5pl	-	
Matte Photo Paper (MP-101 4x6)	Matte Photo Paper		12 pass-bidirectional 1200x600 2pl	6 pass-bidirectional 1200x600 2pl/5pl		
Glossy Photo Paper (GP-401 4x6/Credit Card/GP-501 4x6)	Glossy Photo Paper		12 pass-bidirectional 1200x600 2pl/5pl	6 pass-bidirectional 1200x600 2pl/5pl		
Ink Jet Hagaki	Ink Jet Hagaki		12 pass-bidirectional 1200x600 2pl	6 pass-bidirectional 1200x600 2pl/5pl		
Hagaki	Hagaki		6 pass-bidirectional 1200x600 2pl/5pl	4 pass-bidirectional 1200x600 5pl		

Default setting on the driver UI

3-2. Resolution in Card Direct / Camera Direct / Infrared Printing

Paper type	Paper setting	Print direction, ink used, and resolution (dpi)				
		Quality 1	Quality 2 (High)	Quality 3 (Standard)	Quality 4 (Draft)	Quality 5
Photo Paper Pro (PR-101 4x6)	Photo Paper Pro			6 pass-bidirectional 1200x600 2pl/5pl		
Photo Paper Plus Glossy (PP-101 4x6) Photo Paper Plus Semi-gloss (SG-101 4x6) Photo Stickers (PS-101)[*1]	Photo Paper Plus Glossy		8 pass-bidirectional 1200x600 2pl/5pl *2	4 pass-bidirectional 1200x600 2pl/5pl		
Matte Photo Paper (MP-101 4x6)	Matte Photo Paper			6 pass-bidirectional 1200x600 2pl/5pl		
Glossy Photo Paper (GP-401 4x6/Credit Card/GP-501 4x6)	Glossy Photo Paper			6 pass-bidirectional 1200x600 2pl/5pl		

Notes on PictBridge supported digital camera:

1. Paper size and paper type settings in the camera

    When Default is selected for the paper size and paper type in the camera, printing is performed according to the printer's paper size and paper type settings.

    (It is possible to select the same print mode as Card Direct Printing.)

2. When paper type (other than default) is set in the camera

    Printing is performed in the following print mode:

    - Fast Photo: Photo Paper Pro / Standard (Quality 3)

    - Photo: Photo Paper Plus Glossy / Standard (Quality 3)

Notes on BubleJetDirect supported digital camera:

    - Card#1 (4x6): Photo Paper Pro / Standard (Quality 3)

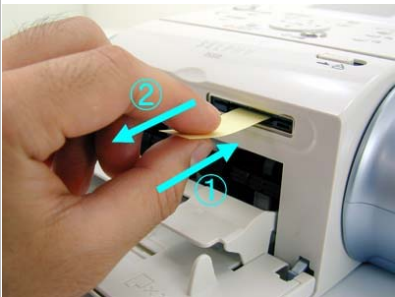   - Card#2 (4x6): Photo Paper Plus Glossy / Standard (Quality 3)

*1: In Print Studio, select Sticker print.

*2: Print Beam not supported.

4. FAQ (Problems Specific to the SELPHY DS810 and Corrective Actions)

No.	*	Function	Phenomenon	Condition	Cause	Corrective Action	Possible call or complaint
1	B	Print results	Soiling on the back side of paper (lines or streaks parallel to the paper feed direction)	After continuous borderless printing of small sized paper (such as Credit Card), when a larger sized paper (such as 4x6) is printed	In borderless printing, printing is performed to the size slightly larger than the paper size, and ink off the paper is absorbed by the platen's ink absorber. Absorbed ink may attach to the platen rib(s) after several dozen sheets are printed, causing soiling at the leading edge of paper or on the back side of paper.	1. Perform Bottom plate cleaning (In the LCD monitor, select Tool box -> Maintenance) up to 3 times. For details, please refer to the user's guide. 2. If soiling on the paper still remains even after Bottom plate cleaning, wipe protruding portion of the platen and their surroundings with a cotton swab. For details, please refer to the user's guide.	- Paper gets smeared. - The back side of paper gets smeared.
2	B	Paper feeding	Skewed paper feeding with Credit Card-sized paper	- In the high temperature and high humidity environment - In the low temperature and low humidity environment - With the maximum 20 sheets loaded	As the paper may be caught by the ASF base corner, and creased and rotated.	Reduce the number of sheets loaded (from 20 to 10, for example).	Paper feeds at an angle.
3	B	Print results	With Credit Card-sized paper, the leading edge of paper contacts the print head.	In the high temperature and high humidity environment	Due to paper swelling in the high temperature and high humidity environment.	- Set paper's curl straight. - Increase the head-to-paper distance by setting the paper thickness lever to the left.	Printing is scratched.
4	B	Operability	The memory card cannot be removed from the card slot.	When using the memory card (miniSD / Memory Stick Duo / xD-Picture Card) which needs the adapter.	A user inserts the memory card without using the adapter.	When the memory card cannot be removed even after carrying out the followings, repair is needed. 1) Tilt the printer's slot part downward. 2) Pull out the memory card using adhesion of removable tapes. (See the photo.) * When operating 1) and 2), be sure to power off the printer and disconnect it from a power source.	- The memory card cannot be removed. - Data stored in the memory card cannot be read. (Accessing to the memory card is not possible.)

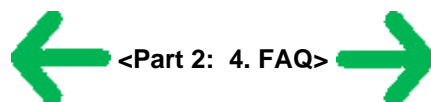| 5 | B | Operability | The carriage error due to the mis-installed print head (5100) | - When installing the print head (When replacing the print head) | When the print head lock lever is not pressed completely into place at the print head installation, the print head lock lever contacts with the main cover, due to its incomplete position. Which causes the carriage error, resulting in the print head not moving to the center. | When the print head cannot be removed even after carrying out the followings, repair is needed. 1) Disconnect the printer from a power source with the printer powered on when the carriage error is occurring. 2) Pull out the carriage and press the print headlock lever in to fix it. | - Error (5100) occurred. - Cyclical blinking of the Power LED and the Alarm LED (2 times) |
| 6 | - | Specifications | The bottom of the printer gets hot. | When continuously printing | Per the specifications. In continuous printing, the bottom of the printer becomes hot, but maintained within the specified range. | No specific solution. | The bottom of the printer gets hot. |

* Occurrence level:

    A: The symptom is likely to occur frequently. (Caution required)

    B: The symptom may occur under certain conditions, but likeliness is assumed very low in practical usage.

    C: The symptom is unlikely to be recognized by the user, and no practical issues are assumed.

Part 3

APPENDIX

3. SPECIFICATIONS

<Printer Specifications>

Type	Serial color ink jet printer
Paper feeding method	Auto sheet feed (ASF)
Resolution	4,800 x 1,200dpi (Max., when printing using a computer), 1200 x 600dpi (when performing Direct Print)
Throughput	Camera Direct printing, PictBridge standard setting, Photo Paper Plus Glossy, borderless printing, standard photo image, data of images equivalent to images of 5 million pixels taken with the Canon compact digital camera (from start of printing to paper ejecting): - Approx. 63 sec.
Printing direction	Bidirectional
Print width	Max. 101.6mm/4 inch (borderless printing)
Print yield*[1]	BCI-16 Color, PP-101 4" x 6", borderless printing, INC photo image: - Approx. 70 pages
Receive buffer	42KB
Interface	USB 2.0 Full Speed, Camera Direct port, IrDA V1.2 (supports only JPEG files), Bluetooth (optional BU-20)
ASF stacking capacity	Max. 20 sheets (PS-101: 1 sheet)
Detection functions	Access cover open, Presence of print head, Presence of ink tank, Remaining ink amount (dot count), Paper presence, Paper end sensor, Waste ink amount, Internal temperature, Pick-up roller position, Paper feed roller position, Carriage position, Supported camera direct printing device, Presence of memory card, Supported paper size (in printing via the Print All button, or printing from a mobile phone)
Acoustic noise (Highest print quality)	Approx. 39dB (highest print quality settings)

Environmental requirements	During operation Temperature 5C to 35C (41F to 95F)
	                Humidity 10%RH to 90%RH (no condensation)
	Non operation Temperature 0C to 40C (32F to 104F)
	                Humidity 5%RH to 95%RH (no condensation)

Power supply	Power supply voltage, frequency	Power consumption	Standby	Power-off
	AC 100 to 240 V, 50/60 Hz	Approx. 11 W	Approx. 1.5 W	Approx. 0.7 W

External dimensions	Printer:
	   With the paper output tray and the viewer retracted: Approx. 220 (W) x 222 (D) x 99 (H) mm
	   With the paper output tray and the viewer extended: Approx. 220 (W) x 316 (D) x 146 (H) mm

Weight	Approx. 1.9 kg, not including the print head and optional units

Related standards (Printer, Adapter)	Electromagnetic radiance:
	   VCCI, FCC, IC, CE Mark, C-Tick, CCC (EMC), GOST-R, SASO
	Electrical safety:
	   Electrical Appliance and Material Safety Law (DENAN), UL, c-UL, CB Report, CE Mark, GS, GOST-R, AS, SASO, CCC, SPRING
	Environmental regulations:
	   RoHS (EU), WEEE (EU), Chemical Substances Control Law, Battery Recycle Law, Law on Promoting Green Purchasing, Container and Packaging Recycling Law, Energy Star, Blue Angel

Serial number location	On the bottom shield plate of the printer
Remaining ink amount detection	Available (automatic detection by dot count, enabled at default)
Print head alignment	- Not necessary at printer installation (when first purchased). - Manual print head alignment is available in the Tool Box menu via the LCD monitor. - Manual print head alignment is also available in the printer driver's Maintenance tab.

*[1]: When do printing the Canon standard pattern on 4" x 6" Photo Paper Plus Glossy in borderless printing, with the default settings in the Windows XPdriver, using Windows XP Photo Printing Wizard. The print yield in the table above is an average value measured in continuous printing, using the ink tank immediately after it is unsealed until the ink runs out. Ink yield may vary depending on text, photos printed, application software, print mode, and type of paper used. Ink is consumed at power input and during printing to protect the print head and keep print quality.

<Direct Printing Specifications>

Memory card drive	Supported memory card	Compact Flash TYPE I/II, Microdrive, SmartMedia Card, Memory Stick, Memory Stick PRO, SD Memory Card, MultiMediaCard, xD-Picture Card*, miniSD Memory Card*, Memory Stick Duo*, Memory Stick PRO Duo* * Adapter required
Storage function	Supported OS	Windows 2000 / XP, Mac OS X 10.2.1 or later
	Utility	- Memory Card Utility packaged with the printer（Read/Write function）
Memory Card Direct Print function	Viewer	2.5 inch color LCD
	Operation panel	15 keys, 3 LED (3 colors: a Power LED. a Warning LED, a memory card access LED)
	Supported file format	JPEG (DCF, CIFF, Exif 2.21 or prior, JFIF), TIFF (Exif complaint), DPOF (Ver. 1.00 compliant)
	Print quality	Photo Paper Plus Glossy: High / Standard, paper other than Photo Paper Plus Glossy: Standard only
	Image correction function	APP (auto photo perfect)*, face brightener, VIVID, noise reduction, red eye reduction *Default: On
	Image color adjustment function	Brightness, Contrast, Color hue
	Image processing function	Not available
	Image search function	Available (by exposure date)
	DPOF	Ver. 1.00 compliant
	Print layout	One-by-one printing / image specification printing: 1 image per page (bordered / borderless)
		DPOF printing: 1 image per page (bordered / borderless), 24 images per page
		Credit Card size: 6 images per page
		Layout printing: 2, 4, and 8 images per page (bordered / borderless)
		Sticker printing: 2, 4, 9, 16 seals per page
	Resolution	Max. 1200 x 600dpi
	Throughput	Photo Paper Plus Glossy, borderless printing, standard photo image, data of images equivalent to images of 5 million pixels taken with the Canon compact digital camera (from start of printing to paper ejecting): Approx. 72 sec.
Camera Direct Print function	Supported digital cameras	Digital cameras and digital video cameras supporting Canon Bubble Jet Direct or PictBridge
	Supported print layout	- 1 image per page (bordered / borderless) - Index printing - 2, 4, 9, and 16 images with bordered per page (only when 4" x 6" paper size is selected)
	Resolution	Max. 1200 x 600dpi
	Throughput	Camera Direct printing, PictBridge standard setting, Photo Paper Plus Glossy, borderless printing, standard photo image, data of images equivalent to images of 5 million pixels taken with the Canon compact digital camera (from start of printing to paper ejecting): Approx. 63 sec.
Print Beam function	Supported mobile phones	IrDA communication: Mobile phone / PDA equipped with IrDA 1.2 port, compliant with IrMC version 1.1 Bluetooth communication (When connecting the optional BU-20): Mobile phone / PDA incorporating Bluetooth, compliant with OPP (Object Push Profile) or BIP (Basic Imaging Profile)
	Printable data	Image (JPEG only)
	Print layout	- Paper other than Photo Stickers: 1, 2, 4, and 8 images per page (bordered / borderless) - Photo Stickers: 1, 2, 4, 5, 6, 7, 9, 16 per page (bordered)

<Print Head Specifications>

Type	Single head with 3 colors (C/M/Y)
Print head	Each color: 256 nozzles (128 nozzles each for 2pl and 5pl) Total: 768 nozzles (600dpi)
Ink color	Cyan, magenta, yellow
Applicable ink tank	BCI-16 Color (dye-based), single tank with 3 colors (C/M/Y)
Weight (Net)	Approx. 27g (not including the ink tank, protective materials, and packing material)
Supply method	As a service part (not including the ink tank)
Part number	QY6-0056-000